WHAT WE CLAIM IS:

1. A process for preparing an improved whey protein hydrolysate containing bioactive peptides comprising hydrolysing a whey protein isolate (WPI) with one or more enzymes characterised in that:

i) the enzyme is a heat labile protease;

ii) the hydrolysis is conducted at a temperature of between about 30°C and 65°C at a pH of about 3.5 to about 9.0 when said enzyme is a neutral protease, at a pH of about 2.5 to about 6.0 where said enzyme is an acid protease; and at a pH of about 5.0 to about 10.0 where said enzyme is an alkaline protease;

iii) the hydrolysis is terminated when a degree of hydrolysis of no greater than about 10% has been reached;

iv) the hydrolysis is terminated by deactivating said one or more enzymes; and

v) the conditions for said step iv) are sufficiently mild to avoid substantial denaturation of peptides or residual proteins in said hydrolysate;

wherein the production of the process is highly soluble.

2. A process according to claim 1, wherein the enzyme is selected from the group consisting of Protease P6, Protease A, Protease M, Peptidase, Neutrase, Validase, AFP 2000, and any other heat labile protease.

3. A process as claimed in claim 1 or 2, wherein said enzyme deactivating step iv) comprises heat deactivation.

4. A process as claimed in claim 3, wherein said heat deactivation comprises heating said hydrolysate for up to ten seconds to a temperature up to about 100°C.

5. A process as claimed in claim 3, wherein, when said hydrolysis is conducted at a temperature of below about 65°C, said heat deactivating step is conducted at about 65°C to about 70°C for from about 10 seconds to about 15 minutes.

6. A process as claimed in claim 3, wherein, when said hydrolysis is conducted at a temperature below about 60°C, said heat deactivating step is conducted at about 60° to about 65°C for from about 10 seconds up to about 30 minutes.

7. A process as claimed in claim 1 or claim 2, wherein said enzyme deactivating step comprises altering the pH of said whey protein-containing substrate to a pH at which said protease is not active.

8. A process as claimed in claim 7, wherein said enzyme deactivating step includes heat deactivation as claimed in any one of claims 3 to 6.

9. A process as claimed in claim 1 or claim 2, wherein said enzyme deactivating step iv) comprises subjecting said hydrolysate to ultrafiltration with an ultrafiltration membrane having a nominal molecular weight cutoff in the range of about 10-500 kDa.

10. A process as claimed in claim 9, wherein said ultrafiltration membrane has a nominal molecular weight cut off in the range of about 10-200 kDa.

11. A process as claimed in any one of the preceding claims, wherein said enzyme is immobilised on an inert support during said hydrolysis step ii).

12. A process as claimed in claim 11, wherein said inert support is Roehm Eupergit, carrageenan particles, chitosan particles or any other suitable inert support material.

13. A process as claimed in any one of the preceding claims, wherein the degree of hydrolysis is from about 3% to about 10%.

14. A process as claimed in claim 13, wherein the degree of hydrolysis is from about 3% to about 5%.

15. A process as claimed in any one of the preceding claims, wherein the whey protein hydrolysate so produced comprises one or more bioactive peptides selected from the group consisting of SAP (SEQ ID NO: 1), MKG (SEQ ID NO: 2), ALPMH (SEQ ID NO: 3), LIVTQ (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

16. A process as claimed in any one of the preceding claims, wherein the whey protein hydrolysate so prepared comprises at least one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 1), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

17. A pharmaceutical composition comprising one or more of the bioactive peptides produced in the process of any one of claims 1 to 16 together with a pharmaceutically acceptable carrier.

18. A pharmaceutical composition as claimed in claim 17, comprising the bioactive peptide MKG (SEQ ID NO: 2) together with a pharmaceutical acceptable carrier.

19. A method of treating or preventing hypertension in a mammal, said method comprising administering an effective amount of a bioactive peptide produced by hydrolysing WPI according to the process of any one of claims 1 to 16 to a mammal in need thereof.

20. A use of one or more bioactive peptides produced by the process of any one of claims 1 to 16 in the manufacture of a medicament for treating or preventing hypertension in a patient in need of such treatment.

21. A use as claimed in claim 19, wherein said bioactive peptide is MKG (SEQ ID NO: 2).

22. A non-bitter, highly soluble WPI hydrolysate product containing bioactive peptides, prepared by the process of any one of claims 1 to 16.

23. A product as claimed in claim 22, wherein the degree of hydrolysis of the WPI is about 3% to about 5%.

24. A product as claimed in claim 23, wherein the main particle size of whey proteins in the product is less than about 30 microns.

25. A product as claimed in claim 24, wherein the main particle size is less than about 3 microns.

26. A product as claimed in any one of claims 22 to 25, which is substantially clear or white in solution.

27. A product as claimed in any one of claims 22 to 26, wherein one or more of said bioactive peptides is selected from the group consisting of SAP (SEQ ID NO: 1), MKG (SEQ ID NO: 2), ALPMH (SEQ ID NO: 3), LIVTQ (SEQ ID NO: 4), VSLPEW (SEQ

ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

28. A product as claimed in any one of claims 22 to 26, comprising at least one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 1), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

29. A food product containing a WPI hydrolysate product as claimed in any one of claims 22 to 28.

30. A method of reducing systolic blood pressure in a subject comprising administering an effective amount of a WPI hydrolysate as claimed in any one of claims 22 to 28 or food product containing said hydrolysate as claimed in claim 29 to a patient in need thereof.

31. A use of a product as claimed in any one of claims 22 to 28 in the manufacture of a medicament for treating or preventing hypertension in a patient in need thereof.

32. A pharmaceutical composition comprising the product of any one of claims 22 to 28 together with a pharmaceutically acceptable carrier.

33. Any one or any combination of two or more peptides selected from the group comprising SAP (SEQ ID NO: 1), MKG (SEQ ID NO: 2), ALPMH (SEQ ID NO: 3), LIVTQ (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

34. Any one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 1), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).